WHAT IS CLAIMED IS:

1. A system for identifying anatomical structure depicted in an in vivo image, comprising:

a) an examination bundlette that includes an in vivo image;

b) a gastrointestinal atlas that includes a list of individual anatomical structures and characterization data of the individual anatomical structures; and

c) a classification engine that analyzes the examination bundlette and the gastrointestinal atlas to identify the anatomical structure depicted in the in vivo image.

2. The system claimed in claim 1, wherein the classification engine includes a classifier identifying the anatomical structure depicted in the in vivo image.

3. The system claimed in claim 2, wherein the classifier is selected from the group consisting of k-nearest neighbor, linear, piecewise linear, quadratic, or polynomial discriminant functions, decision trees, neural networks, and support vector machines.

4. The system claimed in claim 1, wherein the classification engine uses image based classification methods for analyzing the examination bundlette and the gastrointestinal atlas.

5. The system claimed in claim 1, wherein the classification engine extracts image based features from the examination bundlette for comparison with image specific characterization data in the gastrointestinal atlas.

6. The system claimed in claim 1, wherein the classification engine extracts non-image based features from the examination bundlette for comparison with non-image specific characterization data in the gastrointestinal atlas.

7. The system claimed in claim 5, wherein the image specific characterization data is selected from the group consisting of representative images of the anatomical structure captured from various positions and orientations, from various illumination levels, color and/or texture distributions, and features of representative images of the anatomical structure.

8. The system claimed in claim 6, wherein the non-image specific characterization data is selected from the group consisting of the average length or size of the anatomical structure, average relative position of the anatomical structure along the gastrointestinal tract and/or with respect to other anatomical structures, average pH, temperature, pressure levels of the anatomical structure, and average motility characteristics of the anatomical structure.

9. The system claimed in claim 1, wherein the gastrointestinal atlas includes a list of anatomical structures selected from the group consisting of the mouth, pharynx, esophagus, cardiac orifice, stomach, pylorus, duodenum, jejunum, ileum, ileocecal valve, cecum, colon, rectum, and anus.

10. A method for identifying anatomical structure depicted in an in vivo image, comprising the steps of

a) providing an examination bundlette that includes an in vivo image;

b) providing a gastrointestinal atlas that includes a list of individual anatomical structures and characterization data of the individual anatomical structures; and

c) analyzing the examination bundlette and the gastrointestinal atlas to identify the anatomical structure depicted in the in vivo image.

11. The method claimed in claim 10, wherein the classification engine includes a classifier for identifying the anatomical structure depicted in the captured in vivo image.

12. The method claimed in claim 11, wherein the classifier is selected from the group consisting of k-nearest neighbor, linear, piecewise linear, quadratic, or polynomial discriminant functions, decision trees, neural networks, and support vector machines.

13. The method claimed in claim 10, wherein the classification engine uses image based classification methods for analyzing the examination bundlette and the gastrointestinal atlas.

14. The method claimed in claim 10, wherein the classification engine extracts image based features from the examination bundlette for comparison with image specific characterization data in the gastrointestinal atlas.

15. The method claimed in claim 10, wherein the classification engine extracts non-image based features from the examination bundlette for comparison with non-image specific characterization data in the gastrointestinal atlas.

16. The method claimed in claim 14, wherein the image specific characterization data is selected from the group consisting of representative images of the anatomical structure captured from various positions and orientations, from various illumination levels, color and/or texture distributions, and features of representative images of the anatomical structure.

17. The method claimed in claim 15, wherein the non-image specific characterization data is selected from the group consisting of the average length or size of the anatomical structure, average relative position of the anatomical structure along the gastrointestinal tract and/or with respect to other anatomical structures, average pH, temperature, pressure levels of the anatomical structure, and average motility characteristics of the anatomical structure.

18. The method claimed in claim 10, wherein the gastrointestinal atlas includes a list of anatomical structures selected from the group consisting of the mouth, pharynx, esophagus, cardiac orifice, stomach, pylorus, duodenum, jejunum, ileum, ileocecal valve, cecum, colon, rectum, and anus.

19. A system for identifying anatomical structure depicted in an in vivo image, comprising:

a) an examination bundlette that includes a captured in vivo image;

b) a gastrointestinal atlas that includes a list of individual anatomical structures and characterization data of the individual anatomical structures; and

c) a means for analyzing the examination bundlette and the gastrointestinal atlas to identify the anatomical structure depicted in the captured in vivo image.

20. The system claimed in claim 19, wherein the means for analyzing the examination bundlette and the gastrointestinal atlas includes a classifier for identifying the anatomical structure depicted in the captured in vivo image.

21. The system claimed in claim 20, wherein the classifier is selected from the group consisting of k-nearest neighbor, linear, piecewise linear, quadratic, or polynomial discriminant functions, decision trees, neural networks, and support vector machines.

22. The system claimed in claim 19, wherein the means for analyzing the examination bundlette and the gastrointestinal atlas uses image based classification methods for analyzing the examination bundlette and the gastrointestinal atlas.

23. The system claimed in claim 19, wherein the means for analyzing the examination bundlette and the gastrointestinal atlas extracts image

based features from the examination bundlette for comparison with image specific characterization data in the gastrointestinal atlas.

24. The system claimed in claim 19, wherein the means for analyzing the examination bundlette and the gastrointestinal atlas extracts non-image based features from the examination bundlette for comparison with non-image specific characterization data in the gastrointestinal atlas.

25. A method for adjusting the capture rate of an in vivo camera system in accordance with anatomical structure, comprising the steps of:

a) providing a gastrointestinal atlas that includes a list of individual anatomical structures and characterization data of the individual anatomical structures;

b) constructing a selection set containing at least one anatomical structure from the gastrointestinal atlas;

c) associating with each anatomical structure in the selection set a capture rate;

d) capturing in vivo images of an anatomy at a first capture rate to generate a series of image packets;

e) generating an examination bundlette for at least one of image packets;

f) analyzing the examination bundlette and the gastrointestinal atlas to identify the anatomical structure depicted in the in vivo image; and

g) adjusting the first capture rate to an adjusted capture rate associated with identified anatomical structure upon identification of an anatomical structure belonging to the selection set.

26. The method claimed in claim 25, further comprising the steps of:

h) capturing in vivo images of an anatomy at the adjusted capture rate to generate the series of image packets;

i) repeating steps (e) and (f) with the series of image packets captured at the adjusted capture rate; and

j) readjusting the adjusted capture rate, where the identified anatomical structure is different from a previously identified anatomical structure.

27. The method claimed in claim 26, wherein the step of readjusting the adjusted capture rate comprises the steps of:

j1) adjusting the capture rate to the first capture rate upon identification of an anatomical structure not belonging to the selection set; and

j2) adjusting the capture rate to a capture rate associated with the identified anatomical structure upon identification of an anatomical structure belonging to the selection set.

28. The method claimed in claim 26, further comprising the step of:

k) repeating steps (h) through (j) for duration of an in vivo examination.